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John D. Rockefeller (1839-1937)

Industrial Pioneer and Man

W. TREVOR HOLLIDAY

MEMBER OF THE NEWCOMEN SOCIETY

PRESIDENT

THE STANDARD OIL COMPANY (OHIO)

CLEVELAND



THE NEWCOMEN SOCIETY OF ENGLAND

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"Were American Newcomen to do naught else, our work is well done if we succeed in sharing with America a strengthened inspiration to continue the struggle towards a nobler Civilization—through wider knowledge and understanding of the hopes, ambitions, and deeds of leaders in the past who have upheld Civilization's material progress. As we look backward, let us look forward."

—CHARLES PENROSE

*Senior Vice-President for North America
The Newcomen Society of England*

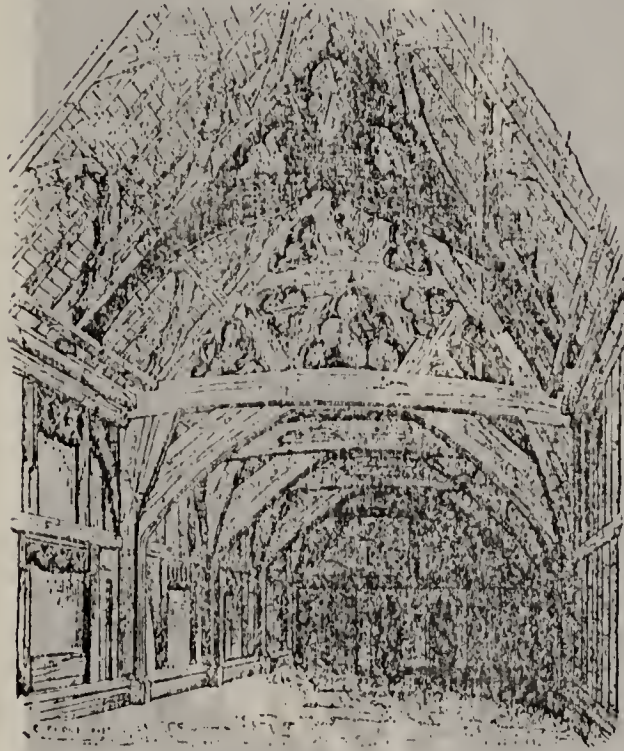


This statement, crystallizing a broad purpose of the Society, was first read at the Newcomen Meeting at New York World's Fair on August 5, 1939, when American Newcomen were guests of The British Government

"Actorum Memores simul affectamus Agenda"

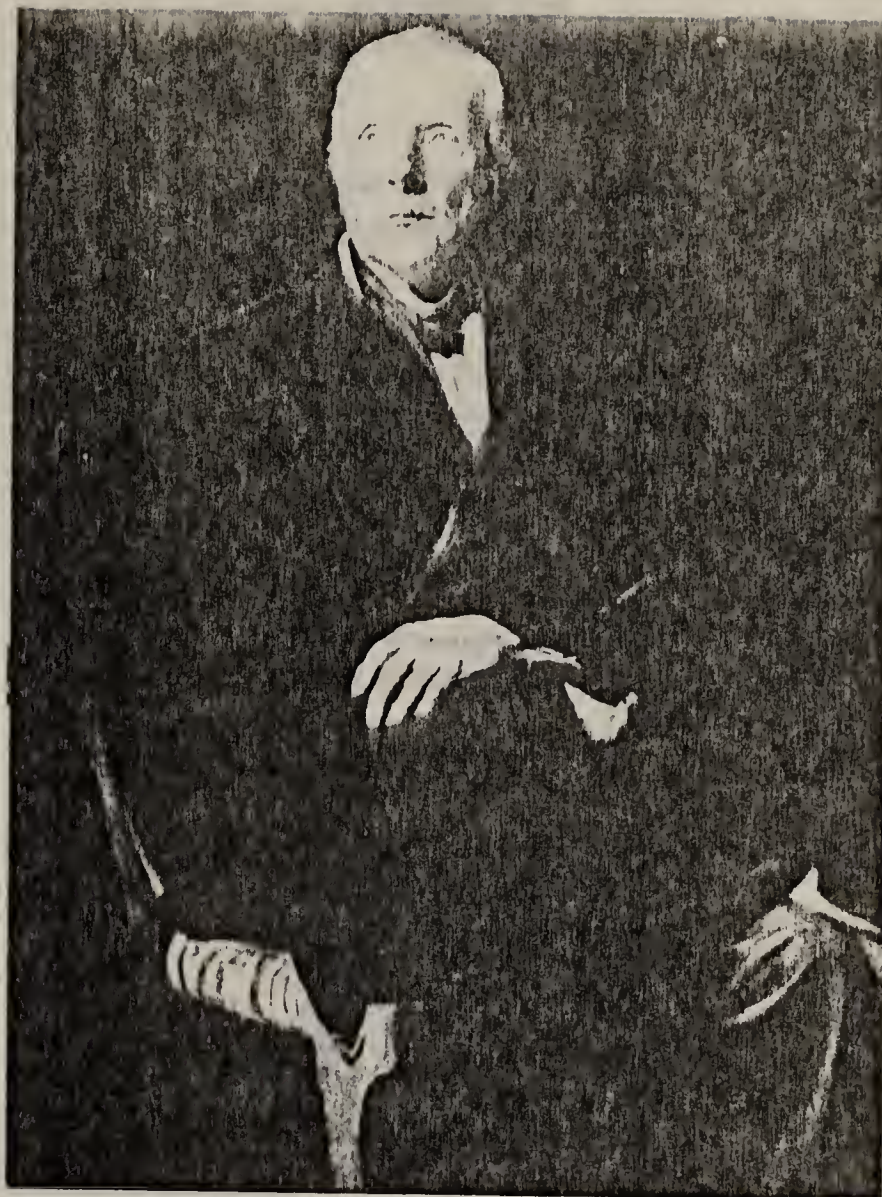
JOHN D. ROCKEFELLER (1839-1937)

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AMERICAN NEWCOMEN, *through the years, has honored numerous American Industries and the memories of men whose initiative, courage, driving force, and faith have had lasting effect upon the development of America's natural resources, America's business enterprises, and America's progress. Such a Newcomen manuscript is this dealing with a leader whose courageous name forever will be associated with Business Management and the Petroleum Industry.*





JOHN D. ROCKEFELLER
(1839-1937)

❧

*From the oil painting by JOHN SINGER
SARGENT, RA (1856-1925), painted in June
1917 at Pocantico Hills, New York, U.S.A.*

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JOHN D. BROWN
1900-1901

JOHN D. BROWN, JR.
1902-1903

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W. TREVOR HOLLIDAY



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*The Newcomen Society, as a body,
is not responsible for opinions
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Second Printing: June 1948
Third Printing: July 1948*



*This Newcomen Address, dealing with the life
and works and times of a great industrial pio-
neer in the United States of America, whose
name forever will be identified with the Petro-
leum Industry, was delivered at a National
Newcomen Dinner of The Newcomen Society
of England, at which Mr. Holliday was guest
of honor, held in the Ballroom of The Pierre,
at New York, N.Y., U.S.A., on March 4, 1948*



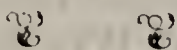
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“... it is my conviction that the fundamental motivating quality of this man was what we might call perfectionism. I cannot help feeling that he was much like a doctor; if he had been disposed in his youth toward a medical career, I feel that he might have become a great physician. The doctor's instinct is distressed by the disorder and suffering of sickness and broken bones. The doctor's instinct is to heal, essentially to build order out of disorder. And that instinct, it seems to me, is the one that Mr. Rockefeller brought to bear in his life works.”

—W. TREVOR HOLLIDAY

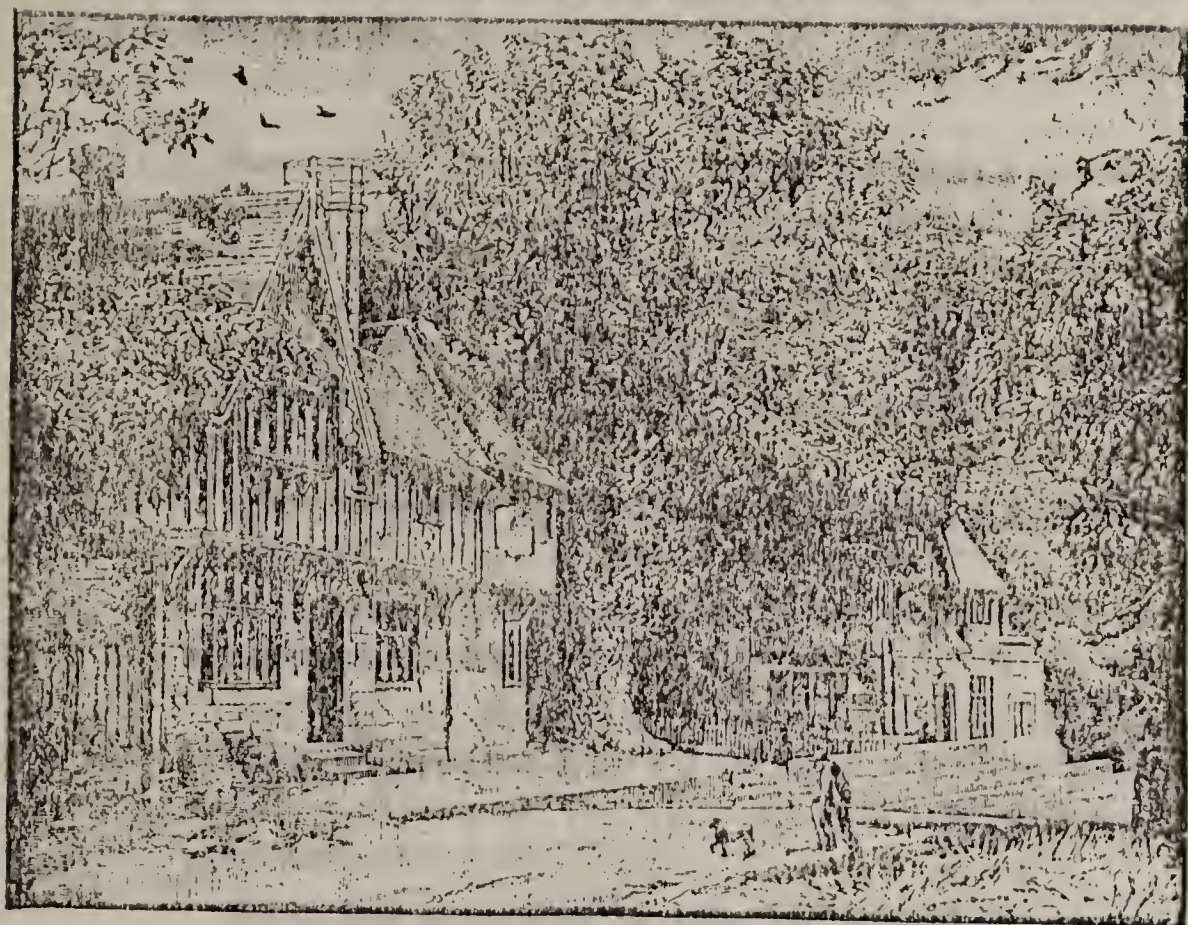


Biographical Sketch of The Author



Of one of America's great natural resources—Petroleum—and of one of America's great industrial pioneers—JOHN D. ROCKEFELLER (1839-1937)—does a leading citizen of Cleveland and personal friend of Mr. Rockefeller write in this unusual Newcomen Address by a present-day leader in the same wide field. WALLACE TREVOR HOLLIDAY, I.L.D., President, The Standard Oil Company (An Ohio Corporation), is a graduate of Cornell University, in the Class of 1905; and of Harvard University, in Law, in 1908. During the succeeding 20 years he was engaged in the general practice of law, identified at first with the Cleveland law office of Kline, Tolles & Goff, who represented the Standard Oil Company of New Jersey and its subsidiaries in the Midwest. Virgil P. Kline, head of the law firm, had been Standard Oil Company's second General Counsel, and through him Mr. Holliday came to know Mr. Kline's contemporaries in the Standard Oil organization. As the youngest man in the law office, Mr. Holliday was given the task of taking papers out to Mr. Rockefeller at Forest Hill, his summer home in East Cleveland, and assisting him in execution and notarization. At that time, Mr. Rockefeller was still in the process of disposing of his estate, and the execution of these papers for the accomplishment of that purpose continued for several summers. In that way, Mr. Holliday developed a friendship with the elder Rockefeller which continued until his death. In 1928, Mr. Holliday retired from the practice of law in the firm of Holliday, Grossman, & McAfee, to become President of the Standard Oil Company of Ohio, which was the original Standard Oil organized in 1870. His are wide interests, and long service, in: American Petroleum Institute; National Petroleum Association; National Petroleum Council; National Association of Manufacturers; National Industrial Conference Board; and others. Was President of Great Lakes Exposition, 1937. Served on Petroleum Industry War Council: 1941-1945. Is a Past-President of Cleveland Chamber of Commerce. Has taken active part in civic, state, and national affairs. Corporation executive, lawyer, good citizen, student of history, Mr. HOLLIDAY is a Vice-Chairman of the Cleveland Committee, in The Newcomen Society of England.

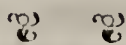




My fellow members of Newcomen:

THE YEAR 1865—the year which found the United States of America emerging from the Civil War to complete its industrial revolution and to become, within a generation, the greatest industrial country on the globe—saw a quiet, grave-eyed young businessman in Cleveland launching out as head of his own firm. He was only 25, this young businessman, yet already he possessed ample experience. He had gone to work in a produce house on the Cleveland waterfront at 16. He had joined an older man as partner in starting a grain commission house at 19. With this same partner he had begun a venture in oil refining at 23. Now, just before the war ended and Lincoln was assassinated, he and his partner decided that one must buy out the other's interest in the oil business. An improvised auction was arranged; each partner first threw onto the scales his own half-interest in the commis-

sion business, and then they started adding cash: \$20,000—\$30,000—\$40,000.



Somewhere around the last figure, although I am not certain, is where I place the cash worth of that quiet, grave-eyed young man. But he did not stop there. He had been establishing himself with the Cleveland bankers, and he had confidence in his credit. He did not stop until he had made a firm bid of \$72,500, plus his half-share of the commission business—and his partner had thrown up his hands.

The young man said to his partner, "Shall I give you a check for it now?"

"No, John," said the partner, "I am glad to trust you for it. Settle at your convenience."

And with this accolade upon his probity, John Davison Rockefeller became for the first time the head of his own business. And it was the *oil* business. The world was soon to begin hearing a very great deal about both.

Forty-four years later, in 1909, Mr. Rockefeller was still quiet, still grave-eyed, a courteous gentleman of 70. It was 15 years since he had completely retired from business. But between that bold stroke as a young man in buying his first refinery, and the day he retired from business, his guiding genius had built the pioneer example of modern business organization, and the largest business enterprise in the world of its time: The Standard Oil Company. At his retirement he had been rated the wealthiest man in the world, and already he had given much of his fortune away. John D. Rockefeller had come a long way from the 16-year-old clerk at \$16 a month.

That summer of 1909 he and Mrs. Rockefeller were residing, as they did in the summers, on their estate at Forest Hill in East Cleveland. He was still in the process of disposing of his estate by transfers, codicils, and the like, and as the legal papers were transmitted from New York they passed through the hands of his Cleveland attorneys. This was the firm of Kline, Tolles, & Goff, headed by Virgil P. Kline, the second attorney the Standard Oil

Company had had. And to carry the papers out to Mr. Rockefeller in Forest Hill, and to help execute them as a notary public, Mr. Kline chose the most junior and least considerable member of his staff, a long-legged young cub of 25, fresh out of law school.

I think you will grant that it was a notable privilege for this young man, who was myself, to come to know Mr. Rockefeller in such a fashion away back there in those summers of 1909, 1910, and 1911. For my part, I regard those meetings as high points of my life. It is partly upon the basis of the friendship that began at that time and continued until Mr. Rockefeller's death, at the age of 98, that I may presume to present these remarks upon John D. Rockefeller as pioneer industrialist and man. Yet I ask a little better title than that, because I have had 40 years of contact with the business which he organized, and in spite of the passage of time, and the dissolution and dispersal of the companies which once comprised his organization, the influence and tradition of Mr. Rockefeller are still living among the oil companies that bear descent from his original company. As the present chief executive of his original company, I am proud indeed to tell what I can of the man who created it.

A Remarkable Vision

Let us pick up his story at the point where he started out in business for himself, in February of 1865. Older men who learned of that transaction must have shaken their heads over the young man's temerity. At that time \$72,500 represented a small fortune.

But on top of that, everyone knew that the oil business was notoriously one of the most chaotic and reckless ever devised by man. Only a half dozen years old, it seemed a gambler's field. Since Colonel Drake struck oil in 1859, adventurous men had flocked into western Pennsylvania with the same daredevil spirit as into the California gold fields a decade earlier. Hundreds of flowing wells and gushers had been opened; petroleum had at times been collected into small lakes; towns had sprung into existence all over that wild country; oil prices had gone from \$1 to \$10 a barrel and back again in a brief time; companies had been incorporated and their stocks sold by scheming promoters to a credulous public.

As fast as the oil was produced it had to be processed; a recklessness in sinking wells was matched by a recklessness in building refineries—in Pittsburgh and Philadelphia, in New York, in Baltimore, and in Cleveland. Whenever the market became glutted, producers and refiners slashed prices to bankruptcy levels. No average conservative man could look with favor upon the oil business of the 1860's.

But John D. Rockefeller was no average conservative man. His greatest asset, if we are to select it now, was his vision. He himself tells us that as a youth of 16, holding his first job, he had dreamed of finding "something big." And we know that when he bought his first refinery, the "Excelsior," and launched forth in business for himself, he had plans for achieving a large and spacious future. The America of that day was just entering a prodigious boom, and John D. Rockefeller would help to lead it.



The remarkable part of his vision was not so much its scope; it was the way he saw and understood exactly how he was to reach his goal. Here was an industry composed of hundreds of small, uneconomical, blindly clashing units. Most canny investors of the 1860's stood cautiously aloof from it—and they seemed right. On the heels of the first wild surge in opening wells and refineries came a remorseless contraction and deflation. By the late 60's oil was a very sick industry. How did Mr. Rockefeller believe he could make the patient well?

First, he had an unshakable confidence in the immense future of the industry; he knew it was worth all he had of ability and effort. Second, if the industry was now in a state of wildest chaos, he knew it must be made orderly and efficient. And third, he instinctively realized that orderliness would only proceed from a centralized control of large aggregations of plant and capital, with the one aim of an orderly flow of products from the producer to the consumer. That orderly, economical, efficient flow was what we now, many years later, call "vertical integration." I do not know whether Mr. Rockefeller ever used the word "integration." I only know he conceived the idea.

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What was the result? Within 15 years, this young man had reared an organization that controlled perhaps 90% of the oil manufacture and trade of the United States, and to a great degree of the world. He had taken the newest and most chaotic of all our industries, a business constantly ravaged by over-production and unbridled competition, and had organized it for an almost unprecedented production of service and wealth.

Problems in the Oil Industry

The obstacles he had overcome had been colossal. It is hard for us in this day, when our country is the greatest productive nation on earth, and when the concepts of mass production and distribution have enabled us to reach the highest standard of living on earth, to realize the difficulties and problems of the industrial pioneers who made the present situation possible. They had to find their own way; they had to blaze new trails.

One of the first problems, as Mr. Rockefeller well understood, was that of developing industrial units that were large enough to secure the economies of mass production and a growing modern technology. Furthermore, only through large industrial units could the great resources of this country be developed boldly and wisely and rapidly. This was a problem, in essence, of the aggregation of sufficient capital.

It was one thing for this young man to realize this problem—but how was sufficient capital to be assembled? We must always remember to judge a problem and its answer in the light of *its own time*. We have the advantage of history in looking back upon the answer, but the young man living in 1865 did not have that advantage. In those days there was not the modern machinery of investment banking for the distribution to the public of large amounts of corporate securities. The only answer to Mr. Rockefeller's problem was the one he chose: that of merging together the many small units slashing at each other within the oil industry, so that the combined total of their equipment, money, and men would be sufficient to meet the task. This was the only way open. And the nucleus with which Mr. Rockefeller had to start, in comparison with the oil industry as a whole, was so small that his task

seemed like that of trying to make a suit of clothes with nothing but a button.



This vision of aggregation and integration was indeed an audacious one for so young a man. But still more remarkable were the determination and the dexterity with which he brought it to reality. Few people now recall how rapid and direct were the steps he took. At once, in 1865, he quickly enlarged his "Excelsior" refinery in Cleveland. At the same time he was building a new and better refinery in Cleveland, which he called the "Standard," and he opened an office in New York for exporting oil. If you wonder how this young man could have expanded his holdings so quickly, the answer comes from the fact that he had already taken pains to cultivate the trust and good will of Cleveland bankers. He himself tells us in his *Reminiscences** that: "I was always a great borrower in those days." We have a further glimpse of his relations with bankers in an unpublished letter written to an old banking friend in Cleveland, T. P. Handy, who had lent him early support: "I shall ever cherish very grateful recollections of your treatment to me as a young man when I first began, and the very pleasant relations we have maintained for the last 25 years."

Five years after he began, on January 10, 1870, Mr. Rockefeller and his associates organized The Standard Oil Company, under the laws of Ohio, with the tremendous capital for those days of \$1,000,000. In 1872 The Standard Oil Company took in with it several other oil companies, and increased its capital to \$2,500,000. Before the end of 1872, out of the 26 Cleveland oil plants, it controlled 21. This fact alone made Standard Oil in Cleveland the largest single refining agency in the world. In 1875 the capital stock of The Standard Oil Company was increased to \$3,500,000 and that remained its total capital up to 1920. It is interesting to note that none of the capital of the Standard Oil organization prior to its dissolution by the Supreme Court in 1911 was ever supplied by public financing, but was made up of that original \$3,500,000 plus the assets resulting from merger with other oil men and oil

* *Random Reminiscences of Men and Events*, by John D. Rockefeller. Doubleday, Page & Co., 1909.

companies, and plus the money internally generated from operations of the company and plowed back into the business.

In 1872, however, there were strong competitive interests outside of Cleveland, and Mr. Rockefeller's next step was to approach them. By the end of that year his company had acquired all the chief refineries in New York, Philadelphia, and Pittsburgh. By 1875—just ten years after he had entered the oil business—Mr. Rockefeller had also brought the largest refineries of Baltimore into the company, and had acquired several of the principal plants in the oil region of Western Pennsylvania. In these Napoleonic moves in the refining branch of the oil industry, the board was swept almost clean.



Then in 1879 there opened a new era in oil transportation. Local pipe lines were already numerous, but in that year a determined Pennsylvania oil man, Byron D. Benson, in the face of derision and doubts, built the first trunk pipe line, from the Bradford field across the Alleghenies to Williamsport. It was plain that the day of railroad transportation of crude oil was coming to an end. Much as he may have been taken by surprise, Mr. Rockefeller quickly rallied his forces. Gangs of men were set to work laying trunk lines from the Pennsylvania oil fields all the way to New York, Philadelphia, Buffalo, and Cleveland. Standard Oil soon had its enormous pipe line system, covering the East, with consequent saving in transportation costs. Another step in integration had been accomplished.

Integration to the Consumer

Very shortly after Mr. Rockefeller's entry into the refining business, he saw the necessity of extending his integration into the field of distribution. Mass production requires mass distribution, both to take advantage of a continuous and efficient flow of products and to meet a continuous demand.

At that time the oil industry had no distribution system to match the rapidly increasing demand and production. Oil products had at first been carried in wooden barrels, but this method was entirely inadequate to handle the mounting flood. Instead, large tanks were

placed on railroad flat cars—the forerunner of the tank car. Since there were no tank cars in existence, Standard Oil soon had to build and operate its own. But these bulk shipments called for large storage tanks and warehouses at railroad sidings. There were no such bulk stations in existence, and again the organization had to build and operate its own. The next move was the acquisition of tank-wagons, and the establishment of tank-wagon routes fanning out from the bulk stations. And so to get enough, the company even had to build its own tank-wagons. By the sheer necessity, therefore, of quickly providing the means of mass distribution, Mr. Rockefeller had to integrate his manufacturing company into distribution and marketing.



Another necessity was the maintenance of continuous demand for products so that the refineries could operate continuously at capacity. This required the creation of loyal customer demand through identification by trade brands. Mr. Rockefeller once told me that the reason he adopted the name *Standard* was to give the consuming public assurance of “standard quality of product.” He said that the early refiners were simply manufacturers who sold unbranded products to middlemen. There were no standard specifications anywhere in the oil industry. When you bought kerosene for your lamps you had no idea of its quality. You tried it—and if the kerosene contained gasoline, that trial might have been one too many. So, with uniform specifications for all his products, he established the *Standard* brand. And to be assured that those standard products would reach the customer without adulteration, Standard had to control its entire marketing system and develop methods of integration that were then new in the world of business.

The extraordinary requirements for barrels and boxes could not be met by existing factories, and there was no time to wait for others to do the job. The company had to build its own cooperage plants and stave mills, and then go out and acquire timber lands to gain an assured supply of lumber. Likewise, it had to design and build its own refineries. In those days there were no scientists and research men in the world of business, and the managers of the refineries had to develop refining processes by trial and error, and thus improvise their own refinery equipment. Up to about 30 years

ago, a refinery manager was a construction man as well as an operating manager.

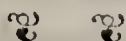
Out of these necessities Mr. Rockefeller quickly integrated his organization from the mouth of the oil well to the consumer.

Crude Oil Production

Crude oil production itself, however, was of no particular interest to him. The truth was, that, with production so highly speculative and uncontrolled in those days, crude oil was in a chronic state of over-supply. Therefore it was unnecessary for a refinery to own its own crude oil fields in order to get all the oil it needed.

Not until the discovery of the famous Lima field did Mr. Rockefeller show an interest in crude oil production, and this interest came to him because of a technical challenge. The crude oil from the Lima field was what we call "sour" crude—that is, it contained a high percentage of sulphur. In those days no one knew how to handle this oil in a refinery, so it was a drug on the market. But because Mr. Rockefeller had faith that some means could be found for refining this "sour" crude, he persuaded his associates that the company should lease large parts of the Lima field. His faith was justified. A young chemist employed by the company, named Herman Frasch, soon developed a process for taking the sulphur out of this crude oil. From then on Standard Oil had a certain amount of downward integration into oil production, but during Mr. Rockefeller's time this was only a minor part of the operation. Mr. Rockefeller seemed to prefer to let somebody else undertake the gambling end of the oil industry.

It is interesting to note that, on the contrary, the great units in the oil industry today which are not descended from Mr. Rockefeller's organization are companies which, some time after his retirement, and when the great oil fields of the Southwest were opened up, started in the production end of the business and integrated vertically *upward* through transportation and refining to ultimate distribution and sales.



By and large, the former Standard Oil subsidiaries were rather tardily integrated vertically *downward* into oil production. That

was not a reversal of Mr. Rockefeller's judgment. It simply reflects a change in fundamental conditions. In Mr. Rockefeller's day there was no problem of getting a sufficient supply of available crude oil.

Before Mr. Rockefeller's time there was almost no such thing as vertical integration in the business world; now it is the accepted pattern for efficiency and economy in certain segments of American industry. Looking back today, it is manifest that the supplying to the public of the great volume of liquid petroleum products required vertical integration. Mr. Rockefeller was one of the few who realized that fact in his early days. Today there are people who would turn the clock back and contend that the oil industry ought to be disintegrated, its units divorced. But the oil industry, by the very liquid nature of its product, must be integrated from the well to the consumer. When a barrel of crude oil pulses out of a well, it pushes another barrel through the refinery and the channels of distribution to the consumer.

Rockefeller as an Administrator

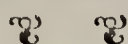
Very clearly, the young man who at 25 grasped such a bold vision of industrial integration, and in 15 years carried his plan to realization, was a leader of unusual talents. Mr. Rockefeller's achievements as an empire builder have long been acknowledged. But I think that we, for the most part, have overlooked his particular talents as an administrator. His vision, planning, and courage would not have succeeded without the exercising, every day for many years, of the ablest sort of business administration.

Administration might be defined as the art of planning, and of causing the effective execution of plans, through the cooperation of many people. Business administration has been elaborated upon in the last 25 years by a large and increasing volume of specialized literature. I have read a good deal of this, and I have been struck by one fact: that all of the fundamental principles of administration which have been advocated under the name of "modern scientific management" are to be found in Mr. Rockefeller's practices from the beginning of his career. He did not have to study thick books, nor attend special business schools, in order to understand economics and business. He knew all of the important points in

his own mind, apparently by instinct. Nothing else, I think, illustrates quite so well the truth that Mr. Rockefeller, in the broad human field that we call business, was a genius of the first rank.

His primary principle was one I have already hinted at: he counted not upon money fundamentally, not upon materials, but upon *men*. In his *Reminiscences* he says: "In speaking of the real beginning of The Standard Oil Company, it should be remembered that it was not so much the consolidation of the firms in which we had a personal interest, but the coming together of the men who had the combined brainpower to do the work, which was the actual starting point."

It is worth pointing out that the men he gathered around him were a very high-powered group of men indeed. Even today his group of associates, including such men as Oliver H. Payne, Henry W. Flagler, Charles Pratt, H. H. Rogers, and John D. Archbold, is a group that is remembered with respect. Back in 1879, William H. Vanderbilt remarked about this group: "They are mighty smart men. If you ever had to deal with them, you would find that out. They are a great deal smarter than I am."



Mr. Rockefeller tested his principles of administration, you will observe, not on lackeys and yes-men, but on the strongest, boldest, shrewdest business associates he could find. It was by no means a situation that leads automatically to peace. The bickerings in other business groups of the time are well known; Carnegie's quarrel with his partner, Henry Clay Frick, shook the steel industry, and Harriman's battle with his associate in the Illinois Central, Stuyvesant Fish, is almost as famous. But by contrast it is remarkable that the atmosphere of Standard Oil was consistently one of harmonious and friendly comradeship in support of common aims.

There was no doubt that his harmony was due to Mr. Rockefeller's leadership. In manner he was never anything else but the gentleman. It was Mr. Rockefeller's demeanor which made me realize that a gentleman is just what the word says: a man who is gentle. It seems astonishing that a man of that type could hold such bold and spirited associates together. But I know it was his own suave courtesy, self-restraint, and constant kindness, coupled with

utter fearlessness, that not only held his associates together but maintained among them the cordial relations that existed.

His leadership was quietly exerted, but it was a very real leadership in sagacity and vision. John D. Archbold was once asked if Mr. Rockefeller really had greater gifts than the powerful men around him. Archbold replied without hesitation: "Yes, John Rockefeller can see farther ahead than any of us—and then he sees around the corner."

The Art of Discussion

Mr. Rockefeller believed that almost any business problem could be solved by careful analysis and planning, and that most of the risks of business other than unforeseeable catastrophes could be eliminated. But he did not believe that he himself was the only man to do this planning, nor did he believe in planning within the seclusion of an ivory tower. Quite evidently he believed not only that sound plans called for cooperative planning, but that such cooperative discussions were necessary for harmony and effective accomplishment. He was convinced that if intelligent men would patiently discuss a problem long enough, they could come to a general agreement.

When Abraham Flexner asked him what was the secret of Standard Oil's swift rise to power, he emphasized this point. "We had a group of strong men from the outset," he replied. "There were Flagler, Harkness, Colonel Payne, Andrews, my brother, and later others. Our general rule was to take no important action until all of us were convinced of its wisdom. We made sure that we were right, and had planned for every contingency, before we went ahead."



In his *Reminiscences*, Mr. Rockefeller went into further detail: "It is not always the easiest of tasks to induce strong, forceful men to agree. It has always been our policy to hear patiently and discuss frankly until the last shred of evidence is on the table, before trying to reach a conclusion and to decide finally upon a course of action. It is always, I presume, a question in every business just how fast it is wise to go, and we went pretty rapidly in those days,

building and expanding in all directions. We were being confronted with fresh emergencies constantly. But we had with us a group of courageous men who recognized the great principle that a business cannot be a great success that does not fully and efficiently accept and take advantage of its opportunities. How often we discussed those trying questions! Some of us wanted to jump at once into big expenditures, and others to keep to more moderate ones. It was usually a compromise, but one at a time we took these matters up and settled them, never going as fast as the most progressive ones wished, nor quite so carefully as the conservatives desired, but we always made the vote unanimous in the end."

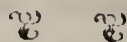
This art of discussion and consultation was not limited to the top staff. Committees were created on lower executive levels for the purpose of analysis and recommendation, and local managers were continually consulted for recommendation and advice, either by letter or by bringing them to the home office.

Once the plan or policy was adopted, however, it was put into action through clear-cut executive lines of authority, and adherence to central policy was firmly maintained.

Accounting Control

For such centralized control in a large organization, new techniques had to be developed. Today the use of accounting as an instrument or tool of management is taken as a matter of course. In those pioneer days, however, there was no such development as we now have in the comptroller's department. Bookkeeping was symbolized by a man sitting on a tall stool, before a large ledger—recording history. One of Mr. Rockefeller's earliest tasks as an administrator was to make accounting an affirmative and forward-looking thing. One can see in his early letters to managers, calling attention to cost figures, his struggle to create in his organization a realization of the necessity of statistical analysis in the conduct of operations. I have read a number of letters, recently discovered, in which Mr. Rockefeller took pains to remind local refinery managers of particular items of their costs, as compared with the costs of other refineries. At first glance one might think he was unduly attentive to detail. But he did not waste his time on detail; a perusal of these letters makes it plain to a business executive that he

was trying to make his managers understand he was constantly alert, and to bring home to them the necessity of using detailed cost accounting as a guide to their own operations.



These cost figures were broken down to one-thousandth of a cent per gallon: three figures beyond the decimal. This was not a matter of penny pinching; the organization could spend with almost reckless zeal when plans demanded it. It was simply the reflection of the fact that in distribution and marketing the oil industry is a "penny business." From the oil well to the refinery it deals in millions of barrels, but in the marketing end of the business it deals in gallons, which involves pennies per unit. In refining and marketing, therefore, costs had to be figured in gallon units, and with only a penny or so of profit per unit, it is manifest that cost figures had to be broken down and managers had to think in terms of small fractions of a penny.

This was certainly a new kind of accounting, but it was essential if prices were to be held down and any profits assured. For example, we find Mr. Rockefeller writing to the manager of the Pioneer Refinery, in 1879, that its cost of refining kerosene was 1.820 cents per gallon, as contrasted with that of an eastern refinery of only 0.910 cent per gallon. It would seem rather certain that after a few such letters a manager caught the significance of cost accounting and took it seriously.

Human Relations in Business

Mr. Rockefeller knew, however, that careful planning and centralized control were not enough. Business, he knew, was an activity of human beings, and business would not work efficiently and economically without the fullest cooperation and sympathetic support of the people who made up the organization. This called for the highest possible morale within the company. And this was accomplished to a remarkable degree.

I feel that Mr. Rockefeller was a pioneer in industrial relations, and when I use that term I do not mean it in the narrow sense of labor-management relations commonly used today. Industrial relations involves *all* of the human relations among *all* of the people of

all ranks in a business organization. It starts at the top with enthusiasm, sympathy, and appreciation, and it involves full understanding and open communication all the way up and down the line. It brings together all of the things implied when we say "team spirit."

Mr. Rockefeller realized the value of voicing appreciation and giving praise. Occasionally he broke through his natural reserve in the warmest fashion. I have seen an unpublished letter of his to President William Rainey Harper of the University of Chicago, written as Dr. Harper lay dying in 1905. They had been closely associated in Mr. Rockefeller's philanthropic work, and now he wrote: "You are constantly in my thoughts. The feelings which I have always cherished toward you are intensified at this time. I glory in your marvelous courage and strength and confidently hope for the best. I have the greatest satisfaction and pleasure in our united efforts for the University, and I am full of hope for its future. No man could have filled your place." And he closed: "With highest esteem and tenderest affection."



Then there was an unpublished letter he wrote in the same year to his old associate, Johnson Newlon Camden: "I am glad to recall that no misunderstanding ever arose between us. You were always reasonable and fair, and we sought to be so, and our relations were delightful and pleasant to look back upon. Indeed, the history of our business associations is one that will always afford us happiness."

In his letters Mr. Rockefeller frequently used the term "our family." He meant The Standard Oil Company. That was no idle phrase, nor a conception that was his alone. It was the conception of Standard Oil men generally.

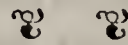
As a young man I had the opportunity of knowing and working with Standard Oil men of the second generation, men who had started with the company in their youth while Mr. Rockefeller and his immediate associates were still active. I used to feel that the spirit among those men was not so much that of a business enterprise as of a fraternal organization or a family. They had a strong feeling of mutual loyalty, and a remarkable group consciousness. I remember that my predecessor as president of The

Standard Oil of Ohio, Mr. A. P. Coombe, once said to me: "When a man goes to work for Standard Oil, he has a re-birth. He gets a new father and mother and new brothers and sisters."

Security and Incentives

Mr. Rockefeller, however, was well aware that good human feelings within an organization must rest on firm foundations. He took a keen interest in the welfare and security of everyone who worked at Standard Oil. In his *Reminiscences* he wrote: "If there is any better function of business management than giving profitable work to employees year after year, in good times and bad, I don't know what it is." Within his own company, and long before old-age pensions were formalized and placed upon an actuarial basis, pensions of a less formal nature were provided, usually patterned to fit the particular cases. I do not believe there was ever a Standard Oil man with any considerable length of service who retired after 60 without a pension.

He recognized that a feeling of security was the basic ingredient in the morale of a company. He also recognized the value and necessity of incentives.



One day on the golf course, shortly after I had become chief executive of The Standard Oil Company, he said to me in the most casual way, apropos of nothing that had been said theretofore: "Now take the matter of compensation, Mr. Holliday. We must recognize that there are two classes of people: the caretakers, and the builders. The caretakers are the backbone of a business organization, and their happiness and feeling of security are essential to a really efficient organization. We live in a competitive world, and it is, therefore, impossible to pay them much more than the competitive rate. In addition to that, however, one must try to give them a feeling of security through continuity of employment, sick leave, old-age pensions, and things of that sort."

"But," he continued, "there are also the *builders*, and they are relatively few. Yet they are the life blood of an organization, Mr. Holliday, and you can never overpay a builder."

The last remark is rather in contrast to current criticism of executives' compensation, but when one remembers how many of Mr. Rockefeller's business associates became wealthy, it is manifest that he practiced his own theory.

An Institutional

Part of the explanation of Mr. Rockefeller's success as an administrator, I believe, was that he was an institutionalist. By this I mean that he did not regard his company in any sense as a device for opportunism; his ambition for his company was not limited to an immediate profit, nor to a short-run success. He was not an opportunist. On the contrary, it is clear that he conceived of a business corporation as having a life and entity of its own, both in fact and in law, which must be enduring.

He expressed this point of view to me in an indirect sort of way, another day on the golf course. He addressed the ball, then relaxed and leaned upon his club and said in a casual and off-hand manner: "Now as to the matter of dividends, Mr. Holliday." We had not been talking about anything remotely connected with that subject! "As to the matter of dividends, there is only one criterion. No matter how large the dividends, you can never quite satisfy all the stockholders. There is only one criterion, and that is what is for the best interest, from the long-run point of view, of the company itself."

It is clear that he thought of his company as an abiding institution, existing not merely for the benefit of present stockholders, employees, and customers, but for the benefit of all *future* stockholders, employees, and customers. Very truly he was an institutionalist; he devoted himself, and he inspired his people to devote themselves, to the improvement and advancement of their institution. And that is the reason, I am sure, why there was a profound feeling among all the ranks of Standard Oil of belonging to, and being a part of, a great institution.



You might be interested in Mr. Rockefeller's own words giving the fundamental philosophy of his company, as written in his *Reminiscences*.

"I ascribe the success of The Standard Oil Company to its consistent policy of making the volume of its business large through the merit and cheapness of its products. It has spared no expense in utilizing the best and most efficient methods of manufacture. It has sought for the best superintendents and workmen, and paid the best wages. It has not hesitated to sacrifice old machinery and old plants for new and better ones. It has placed the manufactories at the points where they could supply markets at the least expense. It has not only sought markets for its principal products, but for all possible by-products, sparing no expense in introducing them to the public in every nook and corner of the world. It has not hesitated to invest millions of dollars in methods for cheapening the gathering and distribution of oils by pipe-lines, special cars, tank-steamers, and tank-wagons. It has erected tank-stations at railroad centers in every part of the country to cheapen the storage and delivery of oil. It has had faith in American oil and has brought together vast sums of money for the purpose of making it what it is, and for holding its markets against the competition of all the countries which are producers of oil and competitors against American products."

The Essential Qualities of the Man

In the perspective of time, as we look back upon Mr. Rockefeller, I feel that he looms larger and clearer as one of the great industrial pioneers of the world. That some aspects of his career were highly controversial, everybody knows. Yet these controversial aspects have already diminished, and will continue to diminish, as history comes to a clearer understanding of his time and of Mr. Rockefeller himself. In my judgment, the controversies were due not so much to the misrepresentation of facts as to the misunderstanding of the man.

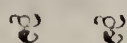
In appraising a man's work, it is not enough to ask what he accomplished. We must supplement this by an inquiry into what his objectives were, and what kind of man he was.

What were the essential qualities of this man who made such spectacular achievements as an industrial empire-builder? In the colloquial phrase, what was it that made him tick? Let us face the question soberly and objectively.

Was Mr. Rockefeller motivated by the desire for money? Or by that most terrible lust of man, the desire for power? The answer to these questions is clearly in the negative. We have his own words in his *Reminiscences*: "I had desired to retire from business in the early 90's. Having begun work so young, I felt that at 50 it was due me to have freedom from absorption in active

business affairs, and to devote myself to a variety of interests other than money making, which had claimed a portion of my time since the beginning of my business career." He had long felt this earnest desire to retire at 50; he had many other projects to which he wished to devote his remaining years. But the panic of 1893 broke out, and he did not feel free to leave his business organization until he was 55 years of age.

Then he retired completely. He left his office, and he closed its door. He abandoned all the power and the money-making that were his as the head of a great company, and he set out on a new road. No, it was not the desire for money or power that motivated Mr. Rockefeller.



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We must search further for his essential motivating quality. And if I may offer my own opinion, based on all I have read about him, and all I have heard from his associates and followers, and all I learned from my personal contacts with him, it is my conviction that the fundamental motivating quality of this man was what we might call perfectionism. I cannot help feeling that he was much like a doctor; if he had been disposed in his youth toward a medical career, I feel that he might have become a great physician. The doctor's instinct is distressed by the disorder and suffering of sickness and broken bones. The doctor's instinct is to heal, essentially to build order out of disorder. And that instinct, it seems to me, is the one that Mr. Rockefeller brought to bear in his life works.

He happened to enter the oil industry in its period of wild disorder and confusion. He thought he could bring orderliness and stability to that industry, and he had the confidence in himself to forge straight ahead and do it. But he had other ambitions for helping a disordered world, and when he built up his business organization to the point where it could run without him, he left it and retired from business at the age of 55. A man's life must be judged in its entirety, and the second half of this man's life, I believe, reinforces our interpretation of the first half.

No one needs to be reminded of the several great philanthropic, educational, and research foundations that Mr. Rockefeller founded and endowed so munificently after his retirement. But here too

it is plain that his instincts for orderliness in human life, for the perfecting of the human environment, and very particularly for healing, were in full operation. All his life, in a word, he wished to serve the world with his talents and means. He himself tells us that his mother trained him in this from childhood, beginning with his tiny but regular gifts to his church from the pennies he earned as a boy. When he was 17, and learned that the little Baptist church of which he was a member needed \$2,000 to lift the mortgage, he undertook to raise the money himself by button-holing every member, and he succeeded. Very early in his life he carried the responsibility of philanthropic service, and when, half a century later, he devoted several hundred million dollars to the same end, he was but following his earliest direction.

The Lighter Side

I do not mean by any of the foregoing to suggest that there was anything lugubrious or solemn about him. On the contrary, though it is far from the conventional picture of Mr. Rockefeller, I feel that I must emphasize his humor and gaiety. I remember particularly one afternoon, way back there when I as a cub lawyer would take papers out to Forest Hill for him to sign. Mr. Rockefeller would glance at these papers and grasp their contents almost instantly. Then he would courteously pass them over to Mrs. Rockefeller, who always endeavored to understand them. On this occasion, she saw at once that the paper was a deed transferring to their son, Mr. John D. Rockefeller, Jr., their old home in Cleveland at the corner of Euclid Avenue and East 40th Street. I recall that she looked up and said, with an almost plaintive air: "Why, John, we are deeding our little nest!"

Mr. Rockefeller smiled and patted her hand. "Yes, Mother," he said, "but that's all right. We still have a few nests left!"



Mr. Rockefeller had a great stock of humorous stories, and their humor was real, but he only drew upon them to illustrate humorously some particular point in the conversation. He had a keen sense of humor, and he could always appreciate humor even when it concerned himself.

One time when I was visiting him at Pocantico, he told me with much amusement of an experience he had had on the previous Sunday at the community church in Tarrytown. Among the people who gathered around him after the service was a dear little old lady. She told him that she had been sitting directly behind him, and she remarked that she could not keep from looking at the back of his head. She said: "Mr. Rockefeller, I could not help noticing that your hair is too long in the back. You ought to have it cut closer around the neck."

On repeating this to me, Mr. Rockefeller chuckled and went on: "I thanked her very much, and told her that I surely would have to consult a barber about it right away."

One would have supposed that everybody in America at that time knew that Mr. Rockefeller had lost his hair years before, and wore a wig!

Rockefeller at Home

When Mr. Rockefeller retired to live on his three estates, of which Pocantico was the most famous, he scarcely ever left them except to attend church, play golf, and take motor drives. One of his great characteristics was his love of the simplicities of country life. He had been reared in a very simple home by a wise and understanding mother, and he cherished the value of fundamental simplicity. His style of life was not in the least elaborate; it was simple, busy, and exceedingly regular. When you visited Mr. Rockefeller, you could set your watch by the time he came to meals or appeared on the golf course. He lived on a schedule as regular as that of a soldier in barracks, allotting space in the day for each activity, but even at that he used to say that the days were not long enough.

His years of retirement in the country were filled with a variety of activities. In his earlier years he rode horse-back, and he was a pioneer golfer of this country. But all through his later years his greatest hobby was landscape architecture. From the time he first had a country place, he loved to move great trees to improve a landscape setting, and to build paths through the woods, and to lay out roadways with the finest scenes and views. On top of these simple country activities, he filled out his days with a keen interest

in the work of his great foundations. It was through these foundations that he kept in contact with the whole world. To his country home he was continually inviting scientists, researchers, educators, and men who were active in a dozen different fields. He lived in retirement—but on the analogy of Emerson's remark about the man who built a better mouse-trap, the world came to Mr. Rockefeller's door and to his fireside.

So his retirement was not a time of laziness or sloth. On the contrary, by means of his orderly, scheduled days and his world-reaching contacts, he made his retirement into a change of work, a change in the kind of service that he tried to render. As long as he lived, he never laid his talents down.



All of this made it a great privilege to be invited to visit Mr. Rockefeller in his home. He kept himself surrounded with remarkable and often distinguished people, yet the visitor could not help noticing that Mr. Rockefeller was the apex of the group, and sheerly by virtue of his personal qualities. For example, it was a deeply instructive sight simply to watch him as he presided over his dinner table. I have spoken of his development of the art of discussion in business, to draw out all opinions before coming to a common decision. And as I sat at his dinner table, I could well imagine how he must have led the discussion at countless directors' meetings.

It was an art of holding himself in the background and putting his guests first. They were of the most diverse interests and talents, yet he drew them subtly and unobtrusively together. One had no sense at the time that the conversation was being led. He never asked flat and leading questions, he never thrust his own opinion forward. But by an adroit question here and there, by a quiet but far-reaching remark, he succeeded in drawing out from every guest at the table a reflection of that guest's special field of interest and activity. He seemed to seek a development of ideas that would bring forth the various views of the cosmos represented by every guest—and if any were not interested in the high affairs of the cosmos, they were given opportunity to bring us back to the fundamental simplicities that hold life together. The result was some-

thing not too common these days, a genuine and fascinating table conversation.

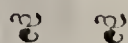
But I ask you again to notice that it was the world's premier industrialist and business genius of the age, and one of the wealthiest and most powerful men of any age, who held himself, with such quiet dignity, in the background. And I think you will agree that this forms a very singular testimony to Mr. Rockefeller's *character*. We have glanced at his business talents, his instinct for order, his traits and his personality. It remains for us to ask: what was the bedrock upon which all this was built?

The answer within Mr. Rockefeller is perfectly plain and definite: it was his spirit of Christian faith. From all that he said about his mother, we know that he gained this from her in his earliest childhood. And we know this was his bedrock for 98 years of life. This simple religious faith, this abiding trust that needed no analysis, was as much a part of him as his pulse and his breath. It accounted for his serenity, his detachment, his tolerance, his refraining from ever pronouncing judgment or criticism upon others, and his deep and life-long sense of service. It accounted for his utter lack of the unlovely human qualities that are so often associated with men of power. For Mr. Rockefeller was a Christian—he was not a Sunday Christian. His religion was so intrinsically a part of himself that he could never put himself to the ordeal of taking any action that was inconsistent with his religious faith. He himself was integrated; he was built all of a piece, from bedrock.

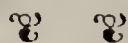
Two Careers of Usefulness

It was on such a foundation that John Davison Rockefeller built his life-long concept of usefulness to the world. In the first half of his long life, his services reached the world through the channel of business. He applied his instinct for perfectionism to the most chaotic of industries, and made it the example and symbol of industrial order and efficiency. He was the foremost business genius in an age of astonishing growth and advance of business. He was the outstanding industrial empire-builder in an age filled with the building of industrial empires. But did he himself think of his business as empire-building? Did he regard it as an impersonal industrial mechanism? Not at all; he was the most modest and

human of men. Long after he retired, he summed up his business in these words: "It was a most happy association of busy people." And that group of people, as we have already seen, had as their guiding aim the production of a staple necessity of modern life with the greatest dependability in quality and the lowest cost. That was *one* kind of usefulness to the world.



Then at 55, with almost a normal lifetime yet ahead of him, he turned completely to another kind of usefulness. His deep instinct for perfectionism was still with him; now he would apply it, in the words of the stated purpose of the Rockefeller Foundation, "to promote the well-being of mankind throughout the world." In his business career he had gone to the roots of the business problem, and built order and knowledge and control into his enterprise from the ground up. Now he would go to the roots of the immensely larger *human* problem. By his foresight, the four great philanthropic foundations that he established make no gifts directly to the men and women to be benefited. Instead, they go straight to the basic study, research, training, and wide application, within a dozen spheres of human betterment from preventive medicine to civic administration, that are and will always be of the broadest and most lasting benefit. It is now only eleven years since Mr. Rockefeller's death, but already there are millions of men, women, and children the world over who owe to him their health, their education, and indeed life itself.



Either one or the other of these two careers of usefulness would be a singular achievement. Either career would be quite enough to earn a man his place in history. But to find them both contained within the 98 years of one man's life is the crowning reason why John Davison Rockefeller will not be forgotten.

THE END



"Actorum Memores simul affectamus Agenda!"



THIS NEWCOMEN ADDRESS, *dealing with the life and work and influence of JOHN D. ROCKEFELLER (1839-1937), was delivered at a National Newcomen Dinner of The Newcomen Society of England, held in the Ball-room of The Pierre, at New York, N.Y., U.S.A., on March 4, 1948, at which MR. HOLLIDAY, the guest of honor, was introduced by GEORGE W. CODRINGTON, Vice-President, General Motors Corporation, Cleveland Diesel Division; Chairman, Cleveland Committee, in American Newcomen. The dinner was presided over by the SENIOR VICE-PRESIDENT FOR NORTH AMERICA, in this British honorary Society whose headquarters are at London.*



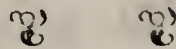


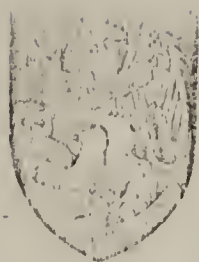
The first of these is the fact that the
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AMERICAN NEWCOMEN takes satisfaction in this Newcomen manuscript which gives such a clear and interesting picture of the life and times and achievements of a pioneer American leader in Industry, Finance, and Philanthropy. Widespread today are the continuing contributions to American life and living and to the betterment indeed of all Mankind—made possible by his brilliant energy and tireless efforts.





THE NEWCOMEN SOCIETY OF ENGLAND IN NORTH AMERICA

BROADLY, this British Society has as its purposes: to increase an appreciation of American-British traditions and ideals in the Arts and Sciences, especially in that bond of sympathy for the cultural and spiritual forces which are common to the two countries; and, secondly, to serve as another link in the intimately friendly relations existing between Great Britain and the United States of America.

The Newcomen Society centers its work in the history of Material Civilization, the history of: Industry, Invention, Engineering, Transportation, the Utilities, Communication, Mining, Agriculture, Finance, Banking, Economics, Education, and the Law—these and correlated historical fields. In short, the background of those factors which have contributed or are contributing to the progress of Mankind.

The best of British traditions, British scholarship, and British ideals stand back of this honorary society, whose headquarters are at London. Its name perpetuates the life and work of Thomas Newcomen (1663-1729), the British pioneer, whose valuable contributions in improvements to the newly invented Steam Engine brought him lasting fame in the field of the Mechanic Arts. The Newcomen Engines, whose period of use was from 1712 to 1775, paved a way for the Industrial Revolution. Newcomen's inventive genius preceded by more than 50 years the brilliant work in Steam by the world-famous James Watt.



*"The roads you travel so briskly
lead out of dim antiquity,
and you study the past chiefly because
of its bearing on the living present
and its promise for the future."*

—LIEUTENANT GENERAL JAMES G. HARBORD,
K.C.M.G., D.S.M., LL.D., U.S. ARMY (RET.)
(1866-1947)

*Late American Member of Council at London
The Newcomen Society of England*



